

IN THE CLAIMS

Please consider the claims as follows:

1. (Currently Amended) A method of processing a sequence of audio samples, each of said samples being stored within a respective packet, said method comprising

retrieving a packet from an input buffer;

determining ~~at least one parameter of~~ pitch associated with audio information contained within said packet; and

determining whether a second packet of said audio samples has arrived at said input buffer; and

adapting the determined parameter to provide an appropriate parameter transition to pitch of said audio information within a nonsequentially following said retrieved packet in an instance where said second packet has not timely arrived.

2. (Currently Amended) The method of claim 1, wherein ~~the audio information parameter comprises a pitch~~ at least two adjacent pitch periods are synthesized to produce new respective pitch periods.

3. (Currently Amended) The method of claim 1, wherein ~~said appropriate parameter transition is at least a portion of a pitch period~~ each new pitch period replaces two adjacent periods.

4. (Currently Amended) The method of claim 3 1, wherein ~~said at least a portion of a pitch period is synthesized to bridge a gap between said retrieved and nonsequential packet~~ each new pitch period is inserted between two adjacent periods.

5. (Currently Amended) A method of claim 1 further comprising:
determining a scheduled play out time of the audio information within the nonsequential second packet.

6. (original) The method of claim 1, further comprising:
determining an estimated time of arrival (ETA) of a sequentially following packet.

7. (original) The method of claim 6, wherein a target play time comprises the ETA and a latency period of said sequentially following packet.

8. (Currently Amended) The method of claim 5, wherein the play time of audio information within the ~~nonsequential~~ second packet is reduced in response to an early arrival of a sequentially following packet at said input buffer.

9. (Currently Amended) The method of claim 8, wherein the play time of audio information within the ~~nonsequential~~ second packet is not reduced by a factor greater than two.

10. (Currently Amended) The method of claim 9, wherein the play time of audio information within said ~~nonsequential~~ second packet is reduced by deleting [a] at least one pitch period of a plurality of pitch periods contained within the said audio information.

11. (Currently Amended) The method of claim 7, wherein the play time of audio information within the ~~nonsequential~~ second packet is expanded if a next packet arrives during its latency period.

12. (Currently Amended) The method of claim ~~11~~ 1, wherein the play time of audio information within said ~~nonsequential~~ second packet is ~~expanded by copying pitch periods contained within said audio information of said nonsequential packet~~ adjusted to compensate for adjustments of play time of the retrieved packet.

13. (Currently Amended) An apparatus comprising:
a first VoIP gateway for retrieving a packet from an input buffer,
said first VoIP gateway determining ~~at least one parameter of~~ pitch
associated with audio information contained within said packet,
said first VoIP gateway determining whether a second packet of said
audio samples has arrived at said input buffer, and adapting the ~~determined~~
~~parameter to provide an appropriate parameter transition to~~ pitch of said audio
information within ~~a nonsequentially following~~ said retrieved packet in an instance
where said second packet has not timely arrived.

14. (Currently Amended) The apparatus of claim 13, wherein ~~the audio~~
~~information parameter comprises a pitch~~ at least two adjacent pitch periods are
synthesized to produce new respective pitch periods.

15. (Currently Amended) The apparatus of claim 13, wherein said
~~appropriate parameter transition is at least a portion of a pitch period~~ each new
pitch period replaces two adjacent periods.

16. (Currently Amended) The apparatus of claim 15, wherein ~~said at~~
~~least a portion of a pitch period is synthesized to bridge a gap between said~~
~~retrieved and nonsequential packet~~ each new pitch period is inserted between
two adjacent pitch periods.

17. (Currently Amended) A method of claim 13, wherein said first VoIP
gateway determines a scheduled play out time of the audio information within the
~~nonsequential~~ second packet.

18. (original) The apparatus of claim 13, wherein said first VoIP gateway
determines

an estimated time of arrival (ETA) of a sequentially following packet.

19. (original) The apparatus of claim 18, wherein a target play time comprises the ETA and a latency period of said sequentially following packet.

20. (Currently Amended) The apparatus of claim 17, wherein the play time of audio information within the ~~nonsequential~~ second packet is reduced in response to an early arrival of a sequentially following packet at said input buffer.

21. (Currently Amended) The apparatus of claim 20, wherein the play time of audio information within the ~~nonsequential~~ second packet is not reduced by a factor greater than two.

22. (Currently Amended) The apparatus of claim 21, wherein the play time of audio information within said ~~nonsequential~~ second packet is reduced by deleting [a] at least one pitch period of a plurality of pitch periods contained within the said audio information.

23. (Currently Amended) The apparatus of claim 19, wherein the play time of audio information within the ~~nonsequential~~ second packet is expanded if a next packet arrives during its latency period.

24. (Currently Amended) The apparatus of claim 23, wherein the play time of audio information within said ~~nonsequential~~ second packet is expanded by copying pitch periods contained within said audio information of said nonsequential packet.

25. (Currently Amended) An apparatus for expanding and reducing audio information within packets, comprising:

a processor; and

a storage device coupled to said processor for controlling said processor, said processor operative with said instructions to:

retrieve a packet from an input buffer;

determine ~~at least one parameter of~~ pitch associated with audio information contained within said packet; and

determine whether a second packet of said audio samples has arrived at said input butter; and

~~adapt the determined parameter to provide an appropriate parameter transition to~~ pitch of said audio information within ~~a nonsequentially following said retrieved packet in an instance where said second packet has not timely arrived.~~

26. (Currently Amended) A computer readable medium having stored thereon a plurality of instructions including instructions which, when executed by a processor, ensures the processor to perform a method comprising:

retrieving a packet from an input buffer;

determining ~~at least one parameter of~~ pitch associated with audio information contained within said packet; and

determining whether a second packet of said audio samples has arrived at said input buffer; and

~~adapting the determined parameter to provide an appropriate parameter transition to~~ pitch of said audio information within ~~a nonsequentially following said second packet in an instance where said second packet has not timely arrived.~~

27. (original) A method of processing a sequence of audio samples, each of said samples being stored within a respective packet, said method comprising:

retrieving a packet form an input buffer;

determining a pitch within said audio samples for each retrieved packet;

adjusting a play time for said retrieved packet based on a time of arrival of a sequentially following packet.

28. (original) The method of claim 27, further comprising:
determining an estimated time of arrival (ETA) for the said sequentially following packet.

29. (original) The method of claim 28, wherein said play time is a target play time.

30. (original) The method of claim 29, wherein said target play time includes the ETA of said sequentially following packet and a latency period.

31. (original) The method of claim 30 further comprising:
expanding the play time of said retrieved packet when said sequentially following packet arrives during its latency period.

32. (original) The method of claim 31, wherein the play time of the retrieved packet is expanded by copying pitch periods contained within said retrieved packet.

33. (original) The method of claim 29 further comprising:
reducing the play time of said sequentially following packet when a subsequent sequentially following packet arrives before its ETA.

34. (original) The method of claim 33, wherein the play time of the sequentially following packet is reduced by removing a pitch period within said sequentially following packet.

35. (original) The method of claim 34, wherein the step of reducing is implemented to compensate for the step of expanding.